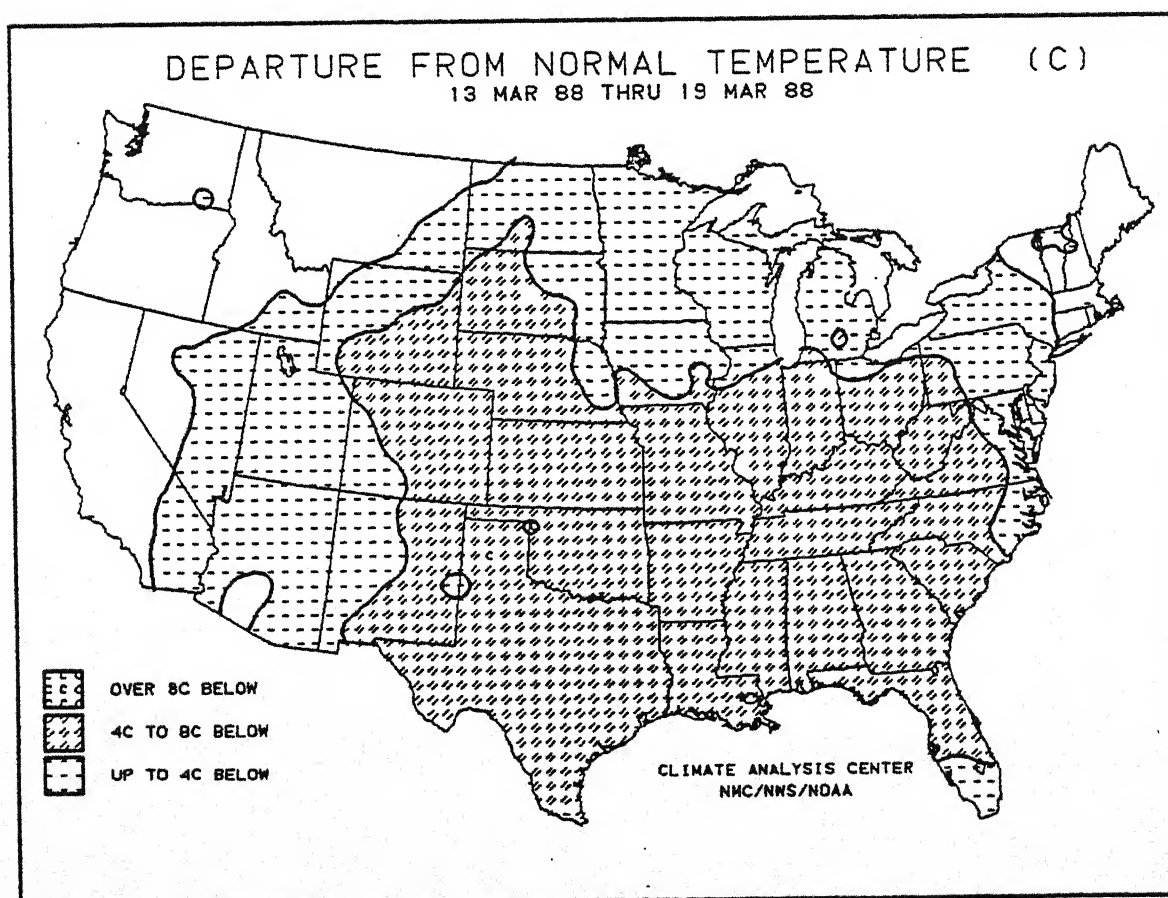


WEEKLY CLIMATE BULLETIN

No. 88/12

Washington, DC

March 19, 1988



MOST OF THE COUNTRY EXPERIENCED UNUSUALLY COLD WEATHER (AVERAGE TEMPERATURES AS GREAT AS 8.3°C (15°F) BELOW NORMAL) DURING THE LAST FULL WEEK OF WINTER.

NOAA - NATIONAL WEATHER SERVICE - NATIONAL METEOROLOGICAL CENTER

WEEKLY CLIMATE BULLETIN

Editor:	David Miskus
Associate Editor:	Paul Sabol
Contributors:	James A. Fleming Keith W. Johnson
Graphics:	Robert H. Churchill John P. Dee
Typing:	Ann C. Kellar

This Bulletin is issued weekly by the Climate Analysis Center and is designed to indicate, in a brief, concise format, current surface climatic conditions in the United States and around the world. The Bulletin contains:

- Highlights of major global climatic events and anomalies.
- U.S. climatic conditions for the previous week.
- U.S. apparent temperatures (summer) or wind chill (winter).
- Global two-week temperature anomalies.
- Global four-week precipitation anomalies.
- Global monthly temperature and precipitation anomalies.
- Global three-month precipitation anomalies (once a month).
- Global twelve-month precipitation anomalies (every 3 months).
- Global temperature anomalies for winter and summer seasons.
- Special climate summaries, explanations, etc. (as appropriate).

Most analyses contained in this Bulletin are based on preliminary, unchecked data received at the Center via the Global Telecommunication System. Similar analyses based on final, checked data are likely to differ to some extent from those presented here.

To receive copies of the Bulletin or change mailing address, write to:

Climate Analysis Center, W/NMC53
Attention: Weekly Climate Bulletin
NOAA, National Weather Service
Washington, DC 20233
Phone: (301)-763-8071

GLOBAL HIGHLIGHTS

MAJOR CLIMATIC EVENTS AND ANOMALIES AS OF MARCH 19, 1988
(Approximate duration of anomalies is in brackets.)

1. WESTERN UNITED STATES AND SOUTHWESTERN CANADA: UNUSUAL DRYNESS PERSISTS.

Little or no precipitation occurred at most stations in the western United States and adjacent parts of southwestern Canada [9 weeks].

2. CENTRAL AND EASTERN UNITED STATES: DRYNESS SPREADS.

Precipitation amounts across much of the central and eastern United States were generally below 15.5 mm (0.61 inch). Driest areas are in the Carolinas [7 weeks].

3. NORTHERN EUROPE: UNUSUALLY WET CONDITIONS CONTINUE.

Heavy precipitation, as much as 182.1 mm (7.17 inches) in West Germany, was measured across most of southern Scandinavia and central Europe [9 weeks].

4. ZIMBABWE, BOTSWANA, AND NORTHERN SOUTH AFRICA: AREA REMAINS WET.

Scattered showers dropped up to 44 mm (1.73 inches) of rain in the region as unusually wet conditions persist [5 weeks].

5. BRAZIL: MORE RAINS ALONG SOUTHEAST COAST.

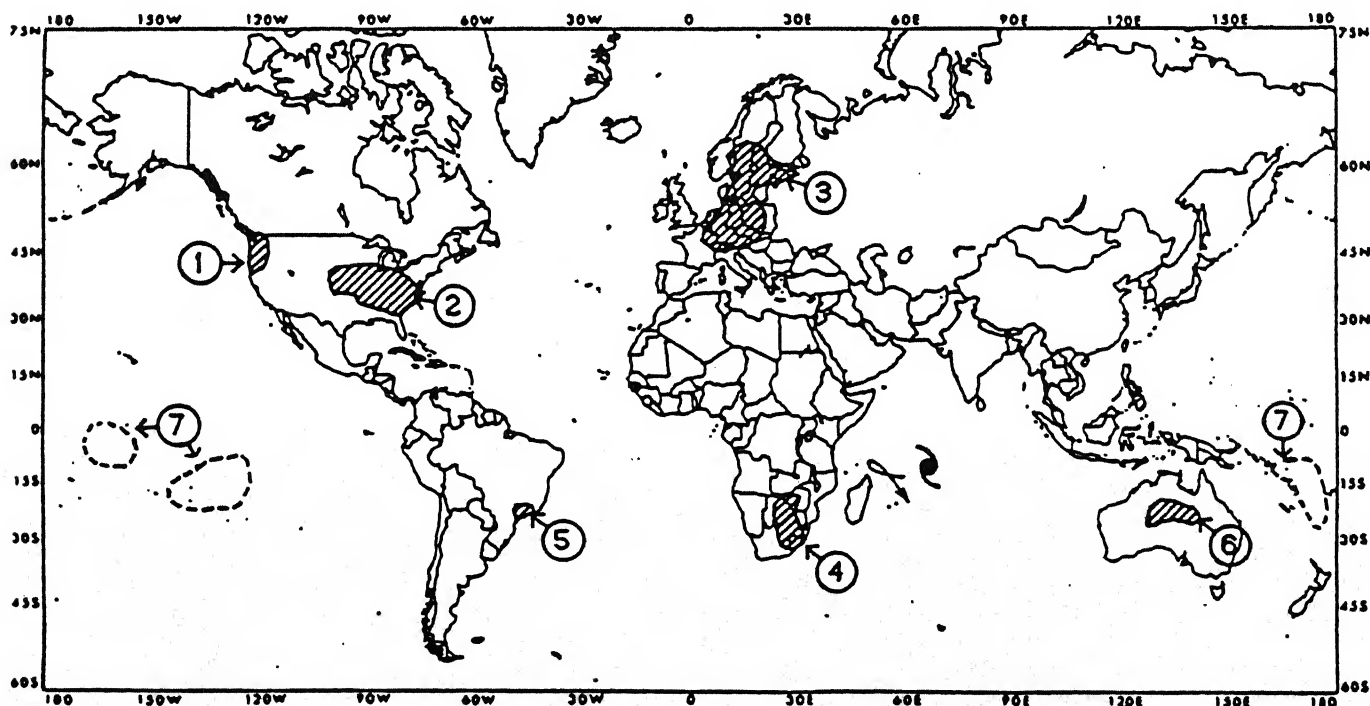
Heavy thunderstorms, up to 118.1 mm (4.65 inches), were observed in the vicinity of Rio de Janeiro and Sao Paulo [5 weeks].

6. NORTH CENTRAL AUSTRALIA: REGION STILL DRY.

Little or no rain, generally less than 33.0 mm (1.30 inch), occurred in the interior of north central Australia [7 weeks]. Near seasonal temperatures returned to the area [Ended at 6 weeks].

7. CENTRAL AND EASTERN TROPICAL PACIFIC: REFER TO FEBRUARY 1988 EL NINO/SOUTHERN OSCILLATION (ENSO) ADVISORY.

The areas of positive sea surface temperature anomalies above 1°C (1.8°F) have greatly diminished over the past few months. Regions above 1°C (1.8°F) during February 1988 are outlined. The March 1988 ENSO Summary will appear in the middle of April.



Approximate locations of the major anomalies and events described above are shown on this map. See the other world maps in this Bulletin for current two-week temperature anomalies, four-week precipitation anomalies, and (occasionally) longer-term anomalies.

U.S. WEEKLY WEATHER HIGHLIGHTS

FOR THE WEEK OF MARCH 13 THROUGH MARCH 19, 1988

In the contiguous U.S., heavy precipitation was limited to southeastern Texas, western Louisiana, and central Florida as thunderstorms dropped up to 6.0, 2.2, and 3.4 inches, respectively, according to the River Forecast Center (see Table 1). Portions of south-central Alaska received between 2-3 inches of precipitation, while almost three inches fell at Hilo, Hawaii. Light to moderate amounts were found along the Washington coast, in the central Rockies, the southern half of the Great Plains, most of the Southeast and the lower Midwest, and parts of the mid-Atlantic and New England regions. Little or no precipitation was confined to much of the West, the northern half of the Great Plains, the upper Midwest, and from southern Virginia northward into southern Maine.

Cold weather spread across much of the nation during the last full week of Winter (see front cover).

Temperatures averaged well below normal in the central and southern Great Plains, Southeast, lower Midwest, and mid-Atlantic. The largest departures (up to -15°F) were located in northern Texas and western Oklahoma, southern Missouri and northern Arkansas, central Mississippi, and the states of Kentucky, Tennessee, and West Virginia (see Table 3 and Figure 1). Several cities in the South set daily record minimum temperatures during the week. The freezing line dipped as far south as southern Texas, the Gulf of Mexico, and central Florida, while twenties and teens were common farther north (see Figure 2). Slightly above normal temperatures occurred in California, the Pacific Northwest, the northern Rockies, and eastern New England. Southern and eastern Alaska remained unseasonably mild with maximum departures of $+9^{\circ}\text{F}$ (see Table 2), however, the northern and western parts of the state experienced colder weather.

TABLE 1. Selected cities with two or more inches of precipitation for the week.

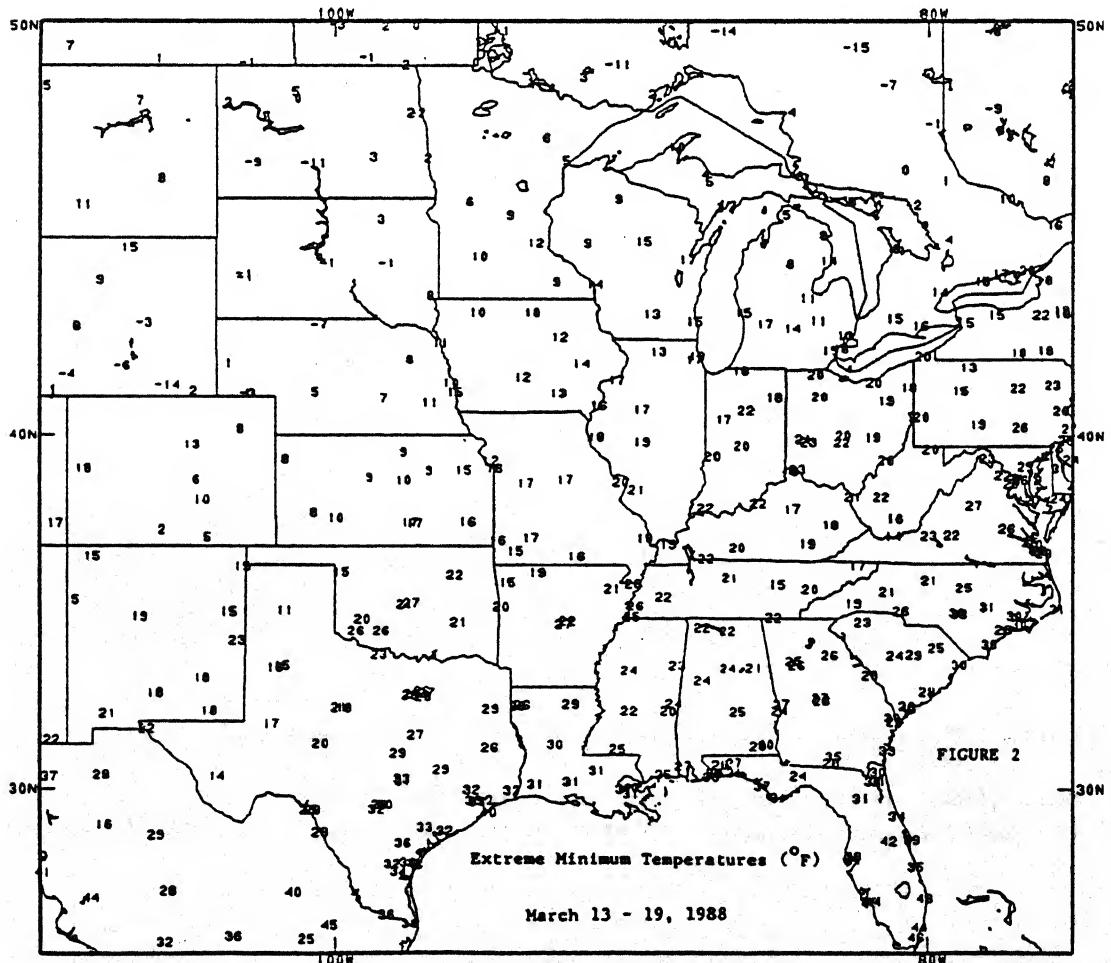
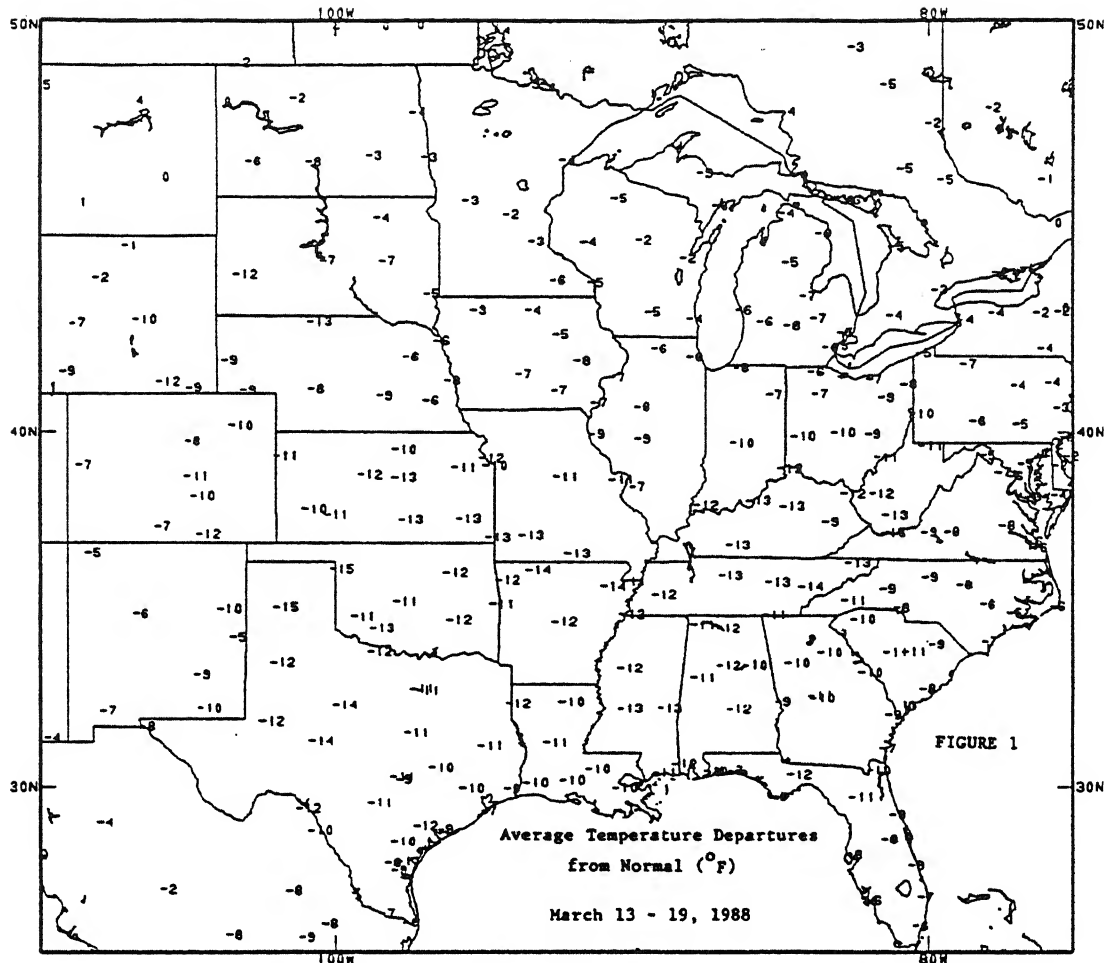
Orlando, FL	3.98	Kodiak, AK	2.41
Vero Beach, FL	3.13	Annette Island, AK	2.13
Yakutat, AK	2.90	West Palm Beach, FL	2.06
Hilo, HI	2.89	Harrison, AR	2.05
Mt. Washington, NH	2.62	Austin/Bergstrom, TX	2.00

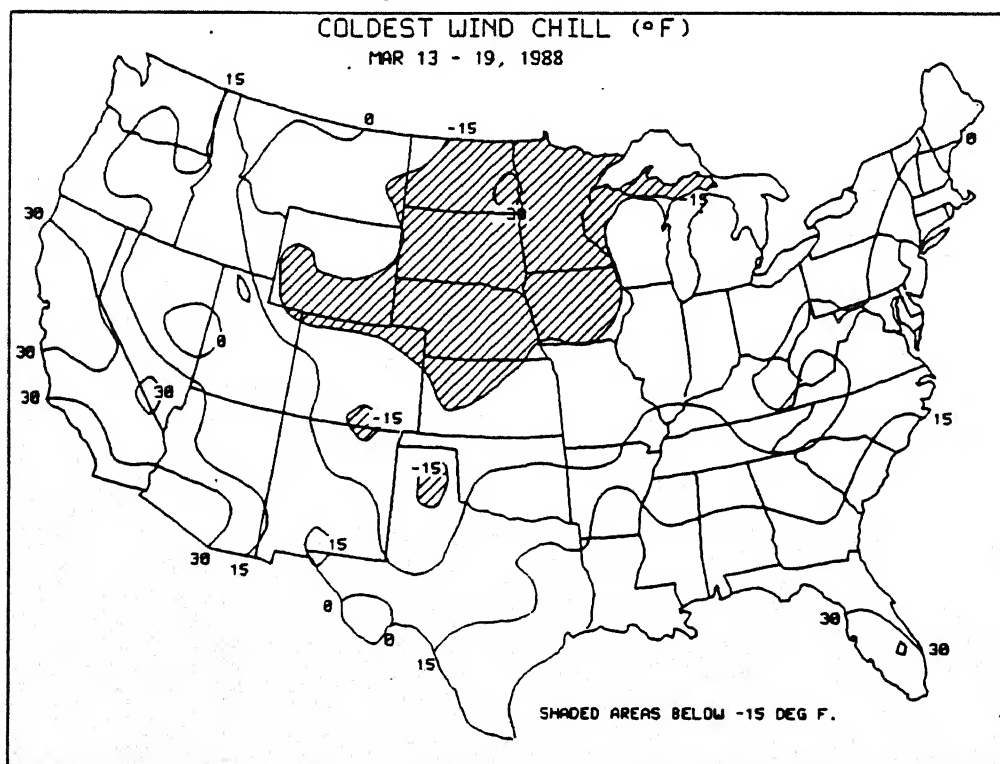
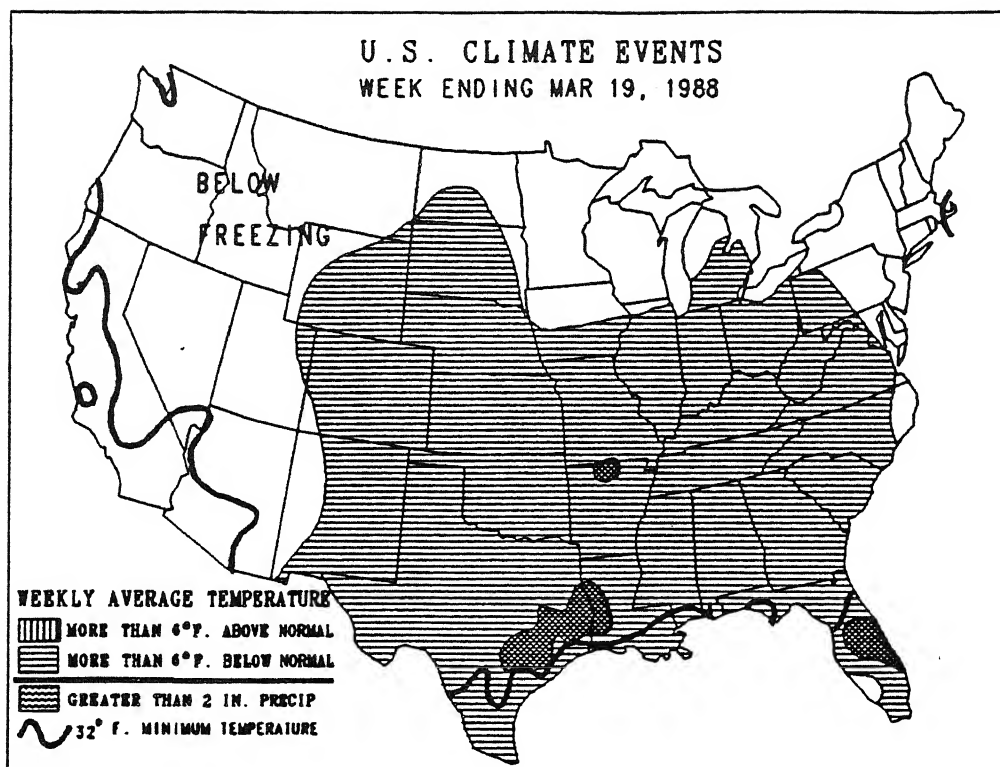
TABLE 2. Selected cities with temperatures averaging greater than 6°F ABOVE normal for the week.

Kenai, AK	+9	Omak, WA	+7
Talkeetna, AK	+8	Gulkana, AK	+7
Valdez, AK	+8	Iliamna, AK	+7
Anchorage, AK	+7	Juneau, AK	+7
Cordova, AK	+7	Kodiak, AK	+7
Homer, AK	+7	Yakutat, AK	+7
Cut Bank, MT	+7		

TABLE 3. Selected cities with temperatures averaging greater than 12°F BELOW normal for the week.

Gage, OK	-15	Louisville, KY	-13
Amarillo, TX	-15	Jackson, MS	-13
Bluefield, WV	-15	Meridian, MS	-13
Jonesboro, AR	-14	Joplin, MO	-13
Knoxville, TN	-14	Springfield, MO	-13
Abilene, TX	-14	West Plains, MO	-13
San Angelo, TX	-14	Valentine, NE	-13
Chanute, KS	-13	Ft. Sill, OK	-13
Elkhart, KS	-13	Bristol, TN	-13
Salina, KS	-13	Crossville, TN	-13
Wichita, KS	-13	Nashville, TN	-13
Bowling Green, KY	-13	Dalhart, TX	-13
Lexington, KY	-13	Beckley, WV	-13

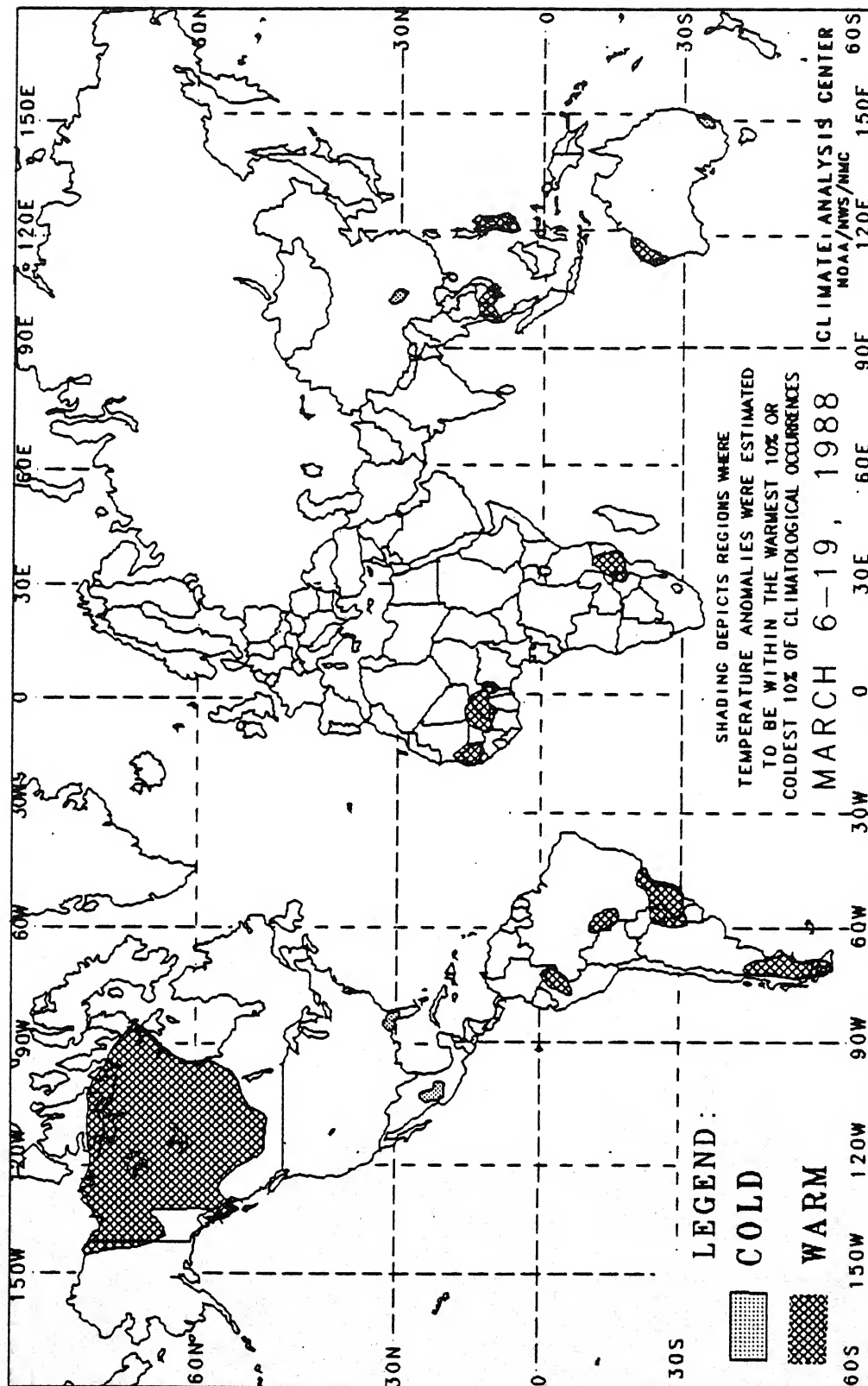




Wintry conditions prevailed across much of the eastern two-thirds of the nation, but wind chills below -30°F were limited to southeastern North Dakota.

GLOBAL TEMPERATURE ANOMALIES

2 Week



The anomalies on this chart are based on approximately 2500 observing stations for which at least 13 days of temperature observations were received from synoptic reports. Many stations do not operate on a twenty-four hour basis so many night time observations are not taken. As a result of these missing observations the estimated minimum temperature may have a warm bias. This in turn may have resulted in an overestimation of the extent of some warm anomalies.

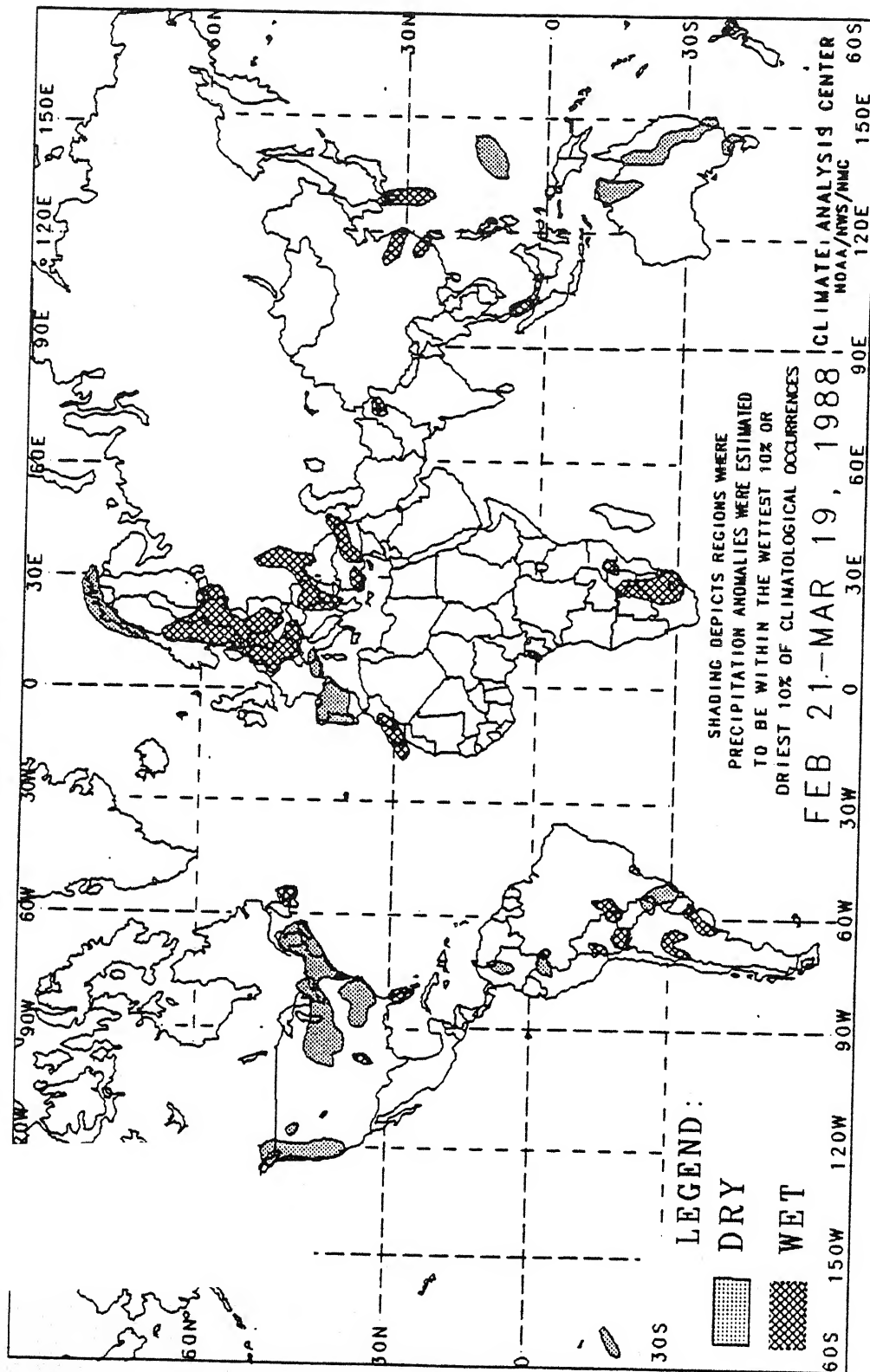
Temperature anomalies are not depicted unless the magnitude of temperature departures from normal exceeds 1.5°C.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of two week temperature anomalies. Caution must be used in relating it to local conditions, especially in

GLOBAL PRECIPITATION ANOMALIES

4 Week



The anomalies on this chart are based on approximately 2500 observing stations for which at least 27 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

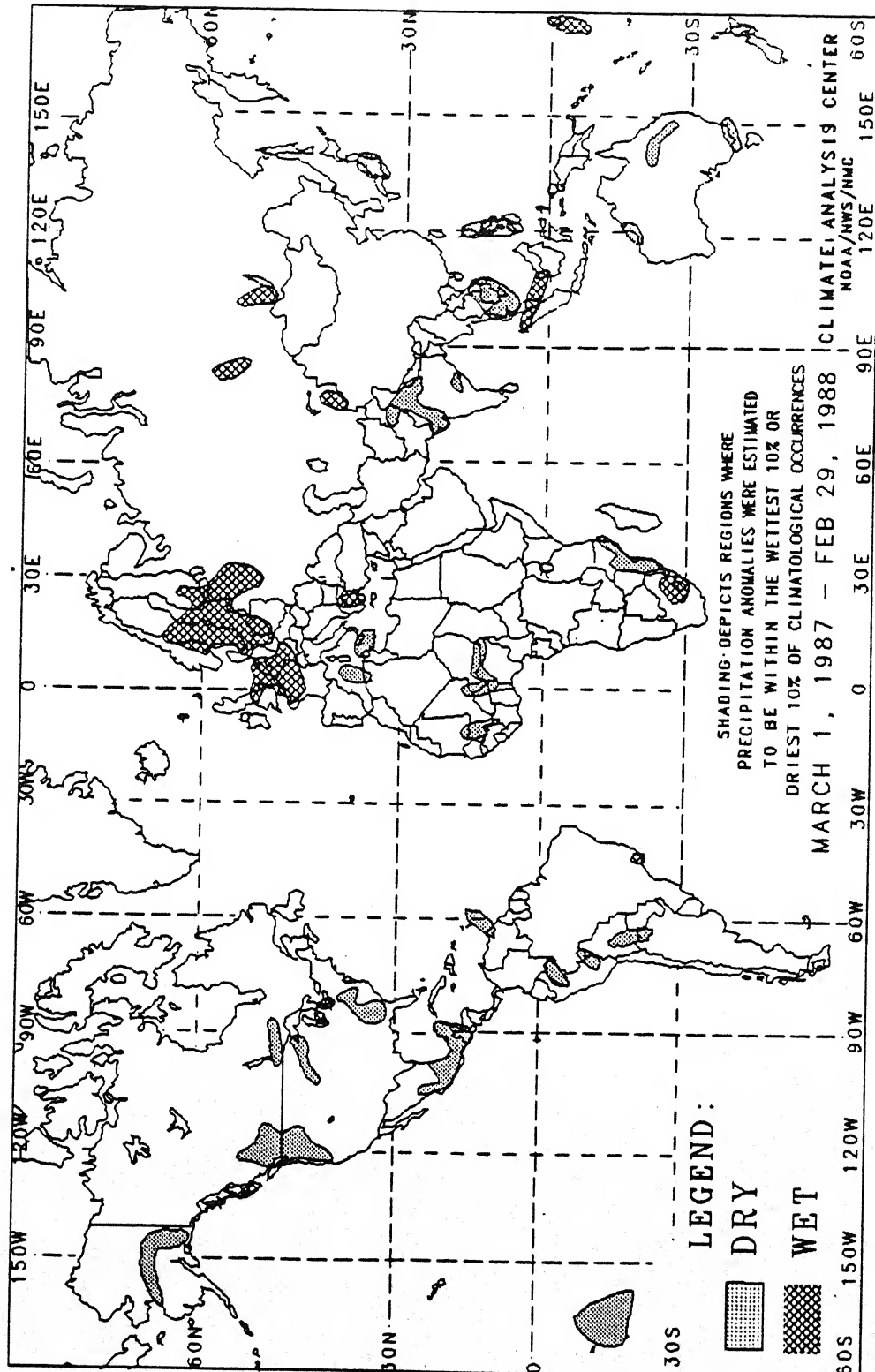
In climatologically arid regions where normal precipitation for the four week period is less than 20 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the total four week precipitation exceeds 50 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of four week precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

GLOBAL PRECIPITATION ANOMALIES

12 Month



The anomalies on this chart are based on approximately 2500 observing stations for which at least 350 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the twelve month period is less than 100 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the total twelve month precipitation exceeds 250 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data are insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of twelve month precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

